Anaerobic Digester Technology Applications in Animal Agriculture -A National Summit

June 2 – 4, 2003

Hilton North Raleigh Hotel

Raleigh, North Carolina

A modern dairy farm complete-mix digester that also recovers valuable fiber
http://www.biogasworks.com/Index/US%20Farm-Based%20AD%20Practices.htm

Water Environment Federation
601 Wythe Street
Alexandria, Virginia USA 22314
www.wef.org

March 2003

Dear Colleague,

In the United States, approximately 250 million dry tons of animal manure is produced yearly. Two federal regulations--the National Pollution Discharge Elimination System (NPDES) and the Effluent Limitations Guidelines—have been modified to include provisions for confined animal feedlot operations (CAFOs), establishing technology-based effluent discharge standards for feedlots (beef, dairy, swine and poultry subcategories).

Regulation modifications were considered necessary because many agricultural sites are already saturated with nutrients (N and P), making it increasingly more necessary to reduce solids volume and to transport the manure off-site for use or disposal.

The new regulations consider the range and limitations of land application possibilities and take into account the best available technologies; clarify the conditions for CAFOs and consider smaller operations; set new storage and new land application criteria for manure (a phosphorous standard); are based on practicability and affordability; encourage new management systems; and, set tougher standards for discharges.

One production technology that would result in environmental protection as well as other benefits is **anaerobic digestion**.

The purpose of this conference is to cover the available anaerobic digestion unit processes as applied to animal agriculture. Papers will address the practical issues associated with the application of existing technology and technicians to agriculture and will include capital and operational funding of on-farm and off-farm projects, barriers and infrastructure needs for energy recovery and use, management systems and examples of successfully demonstrated technology in rural settings.

Anaerobic digestion processes have the potential to mitigate environmental problems, seamlessly fit into livestock/agricultural production systems, and to provide additional economic benefits to operators and rural communities. Our goal for this Conference is to help identify and clarify the appropriate roles for natural resource and rural development public sector agencies in facilitating development and adoption of anaerobic digester technologies in agricultural systems and rural communities.

Note that the USDA Technical Standards for Anaerobic Digestion will be released at this Conference. If you are involved in the design, manufacture, construction, application, operation or management of anaerobic digestion processes or equipment, you should attend this event!

Sincerely,

Thomas Christensen, USDA NRCS
Ted Payseur, Veenstra & Kimm Consulting Engineers
Conference Co-Chairs

Who Should Attend

This summit conference is an opportunity to discuss the new USDA Anaerobic Digestion standard and to cover the available farm-use anaerobic digestion unit processes including design, construction, operation, maintenance, energy extraction, and solids use or disposal. Special attention will be given to cost, environmental impact, actual operating data from existing agricultural anaerobic digestion facilities, the utility of using municipal technologies for agricultural application, innovative technologies, and the facilitation of appropriate technologies in rural settings.

The target audience includes state and federal USDA NRCS, Rural Development and Economics staff and leadership, U. S. DOE and U. S. EPA staff and leadership, agricultural producers, technology vendors, consultants who provide facility design and operations, and technical service providers.

Note that the USDA Technical Standards for Anaerobic Digestion will be released at this Conference. If you are involved in the design, manufacture, construction, application, operation or management of anaerobic digestion processes or equipment, you should attend this event!

The Conference format will include a mix of panel presentations and discussions as well as a technology display. Two tour opportunities (Barham Farms and the Carolina Foods Tarheel plant) will be included in the June 2-to-4 activities.

Co-sponsors

Conference co-sponsors include

USDA, Natural Resources Conservation Service
USDA, Rural Development
U. S. Department of Energy
U. S. Environmental Protection Agency

Program Highlights

The mix of plenary sessions, panel presentations, individual presentations, and discussions and displays will focus on the appropriate application of anaerobic digester technology for waste management and use in animal agriculture. The Summit will explore the technical and institutional challenges to expanding adoption of anaerobic digester technologies and opportunities for the public and private sectors to work together to facilitate digester adoption within the context of animal waste management, rural economic development, and environmental improvement.

Session topics will include institutional involvement and commitment, technology and implementation issues, systems and approaches, education and training, energy recovery and use, and institutional and policy issues. Of special significance in addressing these topics will be the participation of the U.S. Department of Agriculture, U.S. Department of Energy, and U.S. Environmental Protection Agency. Papers will address the practical issues associated with the application of existing digester technology in animal waste management and will include capital and operational funding of on-farm and off-farm projects, barriers and infrastructure needs for energy recovery and use, management systems, and examples of successfully demonstrated technology. Each conference track will consist of presentations of about 25 to 30 minutes each and a discussion period. A reporter will record major discussion points for presentation in a closing plenary session.

On Monday afternoon, June 2, two tours (and a box lunch) will be offered to conference participants—one to Barham Farm and the other to Carolina Foods' Tarheel Plant. Both tours will show the application of anaerobic digester technology for waste management and use. Tours will be limited to conference participants on a first-come basis. Please see restrictions associated with the tour.

Monday, June 2

Day 1 (12:00 noon – 5:00 p.m. Facility Tours, w/ Boxed Lunch
Barham Farms
Carolina Foods' Tarheel Plant
Day 1 (6:00 p.m. – 7:30 p.m.) VIP Reception in Exhibit Hall

Tuesday, June 3

Day 2 (8:00 a.m. – 10 a.m.): Morning plenary - Welcome, presentations on overarching issue/topic areas.
Keynote Session – Key Topic Areas – Overview presentations
Role for Renewable Energy – Legislative Perspective, Senator Chuck Grassley
Conservation Opportunities, Bruce Knight, Chief, NRCS, USDA
Animal Waste Management Center, Steve Jones, Vice Chancellor, NCSU

Rural Policy Dimensions, Tom Dorr, Under Secretary, Rural Development, USDA
Economic Perspectives, Keith Collins, Chief Economist, USDA

Break (10:00 a.m. – 10:30 a.m.)

Day 2 (10:30 a.m. – 12 noon): Morning plenary (Continued)
Research Directions, Joseph Jen, Under Secretary, REE, USDA
Environmental Perspectives, Jean-Mari Peltier, Agricultural Advisor, EPA
Technology, Mike Williams, NCSU (invited)

Day 2 (12 noon – 1:30 p.m.) Hosted Lunch in Exhibit Hall

Day 2 (1:30 p.m. – 5:00 p.m.): Concurrent sessions

1:30 p.m.– 3:00 p.m.
- Technology and Implementation
  - Available and innovative anaerobic digestion unit processes
  - Design, construction, operation and maintenance of anaerobic digesters
- Environment
  - Emissions / AQ & GHG effects
  - Water quality
  - Validating/measuring environmental performance

Break 3:00 p.m. – 3:30 p.m.

3:30 p.m. - 5:00 p.m.
- Anaerobic Digesters in Agricultural Systems
  - Impact of anaerobic digestion on agricultural systems
  - Market opportunities for digester products (post digestion processing/uses)
- Technical Assistance, Education and Training
  - Technical Standards
  - Public-private partnerships (technical service providers
  - Institutional roles and capacity

Wednesday June 4

Day 3 (8:30 a.m. – 10:00 a.m.)
- Rural Policy
  - Social responsibility as related to reuse management
  - Community based digester/treatment opportunities
- NCSU Virtual Tour

Break (10 a.m. – 10:30 a.m.)

Day 3 (10:30 a.m. – 12 noon)

- Case Studies
  - Small- and large-scale examples
  - International experience
- Energy
  - Energy extraction and the power grid
  - Overcoming barriers to uneven production
  - Infrastructure needs to support energy markets

Day 3 (12 noon – 1:30 p.m.) Hosted Lunch in Exhibit Hall

Day 3 (1:30 p.m.– 3:00 p.m.)

- Economics
  - Benefit/cost assessments
  - Market development/approaches to encourage digester adoption
  - Financing digesters
- Technology and Implementation
  - Industrial anaerobic digester application
  - Municipal technology transfer
  - Alternatives to digester processes (ASBR)

Day 3 (3:00 p.m.– 4:30 p.m.) Afternoon plenary session with report-outs of results/findings from concurrent sessions

Closing Remarks, Secretary Veneman or Deputy Secretary Mosely (invited)

2003 Anaerobic Digester Technology Applications
In Animal Agriculture – A National Summit:
June 2 – 4, 2003, Raleigh, North Carolina

Registration Form

First Name MI Last Name

Company

Address

City / State or Province Zip or Postal Code Country

Telephone Number Fax Number E-mail address

Register EARLY and SAVE $$!
All registration forms received by May 2, 2003 will qualify for discounted registration.

Registration Fees

	Advance Rate On or Before 5/2	Onsite Rate After 5/2
Full Conference	$250	$295

Optional Events
(Tours are not included with Full Conference)

__TA Barham Farms	$25	$25
__TB Carolina Foods	$25	$25

TOTAL: _____

Payment

Registration cannot be accepted without payment. Purchase orders are not accepted on-site.
__ Personal Check Check No. _____
__ Company Check Check No. _____
(Make Checks Payable in U.S. Funds to WEF)

__MasterCard __Visa __American Express
Card number _____ Exp. Date _____

Signature _____

I authorize WEF to charge my credit card for the amount indicated on this page. **AD03**

REGISTRATION INFORMATION:
Register EARLY and SAVE $$! All registration forms received by May 2, 2003 will qualify for discounted registration. All registrations received after May 2, 2003, will be charged the onsite rate.

How to Register?

On-Line: www.wef.org - with credit cards only?

* Fax: 1-708-344-4444 (Registration with credit card payment)?
* Mail: WEF/Anaerobic Digester 2003, c/o CSI, PO Box 591, Brookfield, IL 60513-0591

Registrations sent via Federal Express or other mail service should be addressed to:

WEF/Anaerobic Digester
c/o CSI
2805 25th Avenue
Broadview, IL 60155, USA

REGISTRATION INSTRUCTIONS:

* Use one form per person. Please photocopy if more than one form is needed.
* Complete both sides of the registration form.
* Full payment must accompany registration form.
* Registrations cannot be processed without payment or U.S. government purchase order.
* WEF cannot accept photocopies of checks as payments.
* All registration forms received by Friday, May 16, 2003 will receive a confirmation notice by fax or e-mail**.**
* Registrations received after Friday, May 16, 2003 will not be processed. Please register at the Conference.
* Registration Badges will not be mailed. You may pickup your badge and registration materials at the Advance Registration Desk located onsite at the Hilton North Raleigh Hotel.

PAYMENT INSTRUCTIONS:

* All funds must be in US Dollars payable to Water Environment Federation
* On-line and faxed registrations will be accepted with credit card payment only
* Purchase orders are accepted from US Government agencies ONLY. (Purchase orders must be approved with all authorized signatures).
* Purchase order number must be referenced on registration form and MUST accompany the registration form
* Registration form with payment must be received via on-line, fax or mail to WEF/CSI no later than Friday, May 16, 2003 or you will need to register onsite at the Hilton North Raleigh Hotel.

Cancellation Policy
Written cancellation notice is required and must be received by Friday, May 16, 2003. A 25% service fee will be retained on all cancellations. No refunds will be given after Friday, May 16, 2003. Cancellations received after May 16 and conference registrants who fail to attend are liable for the full registration fee.

FAX or MAIL cancellations or substitutions to:
WEF/Anaerobic Digester 2003
c/o CSI
PO Box 591
Brookfield, IL 60513-0591
Fax: 1-708-344-4444
(Please do not fax and mail)

Housing Information
Hilton North Raleigh
3415 Wake Forest Road
Raleigh, NC 27609-7330
Hotel Main: 1-919-872-2323
Hotel/Guest Fax: 1-919-876-0890
National Reservations: 1-800-Hiltons (445-8667)
Conference Rate: $74/night single or double
Complimentary self-parking
WEF has blocked a limited number of rooms through May 10, 2003 or until the block has sold out. WEF cannot guarantee the conference rate after this date.

EXPOSITION INFORMATION

Anaerobic Digester Technology Applications in Animal Agriculture —A National Summit

Hilton North Raleigh Hotel Raleigh, NC, USA
Exposition Dates: June 2-4, 2003 Conference Dates: June 3-4, 2003

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actual operating data from existing agricultural anaerobic digestion facilities, the utility of using municipal technologies for agricultural application, innovative technologies, and the facilitation of appropriate technologies in rural settings.

Note: *The USDA Technical Standards for Anaerobic Digestion will be released at this Conference!* If you are involved in the design, manufacture, construction, application, operation or management of anaerobic digestion processes or equipment, you should attend and exhibit at this event!

For exhibition information please contact Ms. Kathi Springer, kspringer@wef.org**; 703-684-2414.**